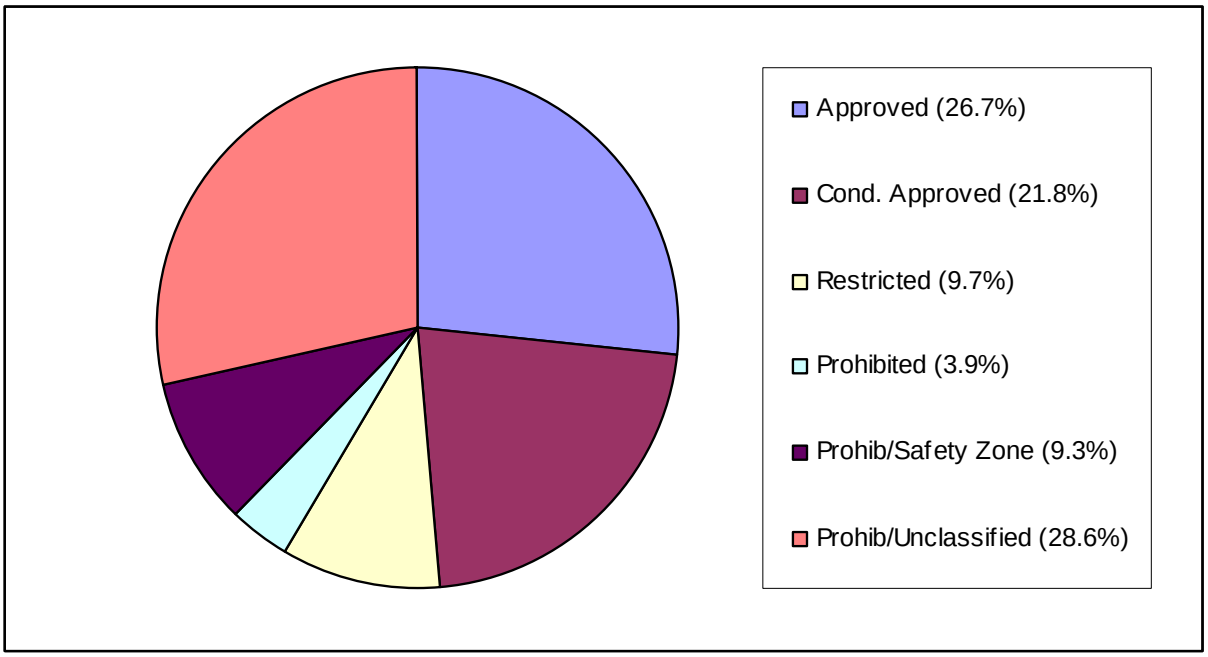
CLASSIFICATION SUMMARY

Summary of 2003 Classifications

A summary of estuarine acreage, grouped by classification in 2003, is given in Figure 12. Of the 11,355 acres of estuarine waters, 48.5 percent are open for harvesting (38.4 percent in 2003), while 22.9 percent (18.1 percent in 2002) are closed because of identified water quality problems or proximity to wastewater treatment plant outfalls and marinas. These changes are largely the result of the classification of the Oyster River (from "unclassified" to "prohibited/safety zone"), the reopening of almost 250 acres of water in Little Bay (from "unclassified" to "conditionally approved"), and the removal of the "Maine side" of the Piscataqua River from the database (these waters were retained and tracked in the database pending the outcome of a US Supreme Court decision on a border dispute between Maine and New Hampshire, which has since been decided in Maine's favor). The remaining 28.6 percent (43.6 percent in 2002) is currently unclassified. DES intends to survey and classify all of these areas by 2005.

Figure 12: 2003 Estuarine Shellfish Water Classifications



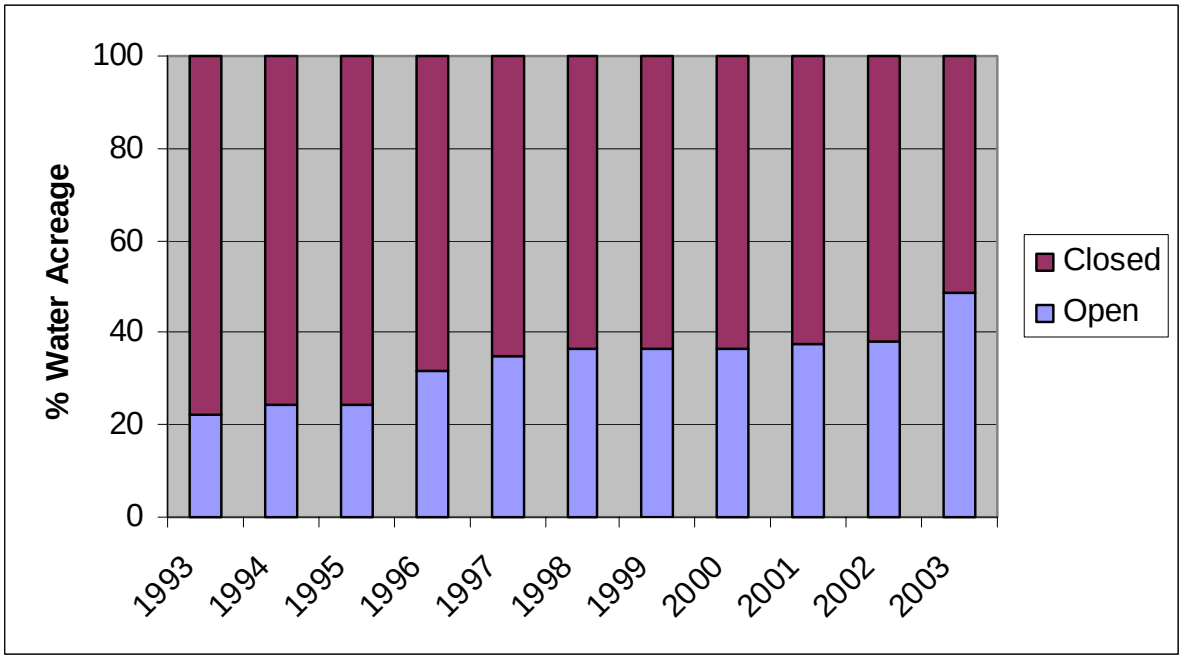
Status and Trends of Acres Open for Harvest

Since 1993, a great deal of effort has been focused on opening shellfish beds for harvesting. The increase in acreage open has included 387 acres in Hampton/Seabrook Harbor, 1,002 acres in Upper Little Bay, and 564 acres in Lower Little Bay. An additional 197 acres of estuarine waters

were reclassified as Conditionally Approved in portions of Little Harbor in late 2001, while approximately 86 additional acres were opened in 2002 in the Hampton Falls and Taylor rivers. Nearly 250 additional acres of waters in Little Bay were classified as Conditionally Approved in 2003 (Figure 13).

Figure 13 shows no increase in acreage for the period of 1998-2000. This is in part due to the fact that responsibilities for shellfish water classification shifted from the New Hampshire Department of Health and Human Services to the New Hampshire Department of Environmental Services in 1999, and completion of sanitary surveys begun in that year were delayed because of the transition. Furthermore, a major effort in 2000 involved classifying the 42,149 acres of Atlantic Coastal Waters. These are coastal, not estuarine, waters and therefore do not appear in Figure 13. The sanitary survey for these waters resulted in the reopening of 38,973 acres, or 92.5 percent of total coastal waters.

Figure 13: Trends in Estuarine Shellfish Water Openings, 1993-2003



Open/Closed Acre-Days (by Area)

While tracking the number of acres of shellfish waters is useful in measuring progress to open shellfish waters, it does not give a completely accurate picture of how often shellfish waters are actually open for harvesting. Nearly all shellfish waters are subject to temporary closures due to rainfall conditions, wastewater treatment plant upsets, and other factors. A more accurate measure of how frequently the shellfish areas are open for harvesting is to compare the number of days the flats *were* open to the number of days the flats *could be* open.

For this analysis, all growing waters listed in Appendix 1 were categorized as a softshell clam area or an oyster area. Clam areas in 2003 could be open for a total of 39 days (Saturdays for the clamming season, defined by New Hampshire Fish and Game as the day after Labor Day to end of May), while oyster areas in 2003 could be open for a total of 303 days (all days of the week for the oystering season, defined by New Hampshire Fish and Game as all months except July and August. Note that the F&G ban on oyster harvesting through winter ice is not considered in the 303 day figure due to year-to-year variations in the spatial and temporal extent of ice cover). By multiplying these numbers by the acreage values for each growing area and summing the total, a total possible acre-day value is derived. DES Shellfish Program records for the harvesting season were then used to determine the actual number of open days for each growing area, and similar calculations were performed to determine total actual acre-days open. For all 11,355 acres of estuarine growing waters, there were 1,761,000 possible open acre-days. The actual number of open acre-days was 827,097.6 or 47.0 percent of the total. This is slightly lower than the 47.1 percent figure calculated for 2000. The decrease is due to the relatively large number of days closed due to WWTF/CSO issues in Great Bay, Little Bay, and Little Harbor. A number of rainfall closures in a rather wet spring and fall also contributed. Calculations for selected open areas (Hampton/Seabrook, Great Bay, Little Bay, and Little Harbor) are presented in Table 14.

Table 14: Percent Open Acre-Days for Hampton/Seabrook, Great Bay, Little Bay, and Little Harbor for Calendar Year 2003

Area	Open Water Acres	Possible # of Open Days	Actual # of Open Days	Possible Acre-Days Open	Actual Acre-Days Open	%Actual Acre-Days Open
Hampton/Seabrook (clam)	1068.19	39	14	41659.4	6633.1	15.9
Great Bay (oyster)	4216.65	303	255	1277645	773323.2	60.5
Little Bay (clam)	1850.63	39	20-28	72174.6	44962.3	62.3
Little Harbor (clam)	899.92	39	11	35096.9	2178.1	6.2

CONCLUSIONS AND WORK FOR 2004

The DES Shellfish Program has responsibility for classifying the shellfish growing waters of the State of New Hampshire. Of the 11,355 acres of estuarine waters, 71.4 percent are classified, while 28.6 percent are unclassified. On an acreage-only basis, 48.5 percent are currently open for harvesting, while on an acre-day basis 47.0 percent were open in 2003. All of the 42,102 acres of Atlantic coastal waters are classified, with 92.5 percent of all acres open for harvesting. For the first time since 1998, paralytic shellfish poisoning closures were instituted on the Atlantic Coast for most of June and part of July. An unusually high number of “emergency” closures were necessary following discharges of improperly treated sewage, including five events affecting Great Bay and Little Bay, two events affecting Little Harbor, and one event affecting Hampton/Seabrook. High bacteria levels associated with a heavy rainfall event in late October prompted an additional emergency closure in Great Bay. Routine water sampling data collected over the last several years, including the nearly 800 samples collected during the course of 56 sampling trips in 2003, support the current classifications of all waters currently open for harvesting, although some changes will be

implemented in 2004. The most significant changes will occur on the Atlantic Coast, where a triennial review of the sanitary survey indicates that an expansion of the closed area around Little River is warranted, as is the establishment of a new closed area on North Beach. A reconfiguration of the closed "safety zone" around the Seabrook WWTF, per the results of a dye/dilution study, will reduce the overall area closed around the outfall. Sanitary survey work in 2004 will focus on completing projects in Great Bay, Little Bay, and the Bellamy River, and continuing survey work already in progress in Hampton/Seabrook, the Cocheco River, Salmon Falls River, and Upper Piscatqua River. A dye/dilution study on the Dover wastewater plant, which is needed to properly classify the Upper Piscataqua River and other nearby waterbodies, is tentatively scheduled for 2004. A triennial evaluation of Little Harbor and Back Channel is scheduled for 2004.